

# Capital Circuits Limited

PREMIUM PRINTED CIRCUIT BOARD MANUFACTURERS

## ***Services / Specifications***

### **Printed Circuit Boards**

- Single Sided
- Double sided PTH
- Multi-layer

### **Stencils**

- Stainless Steel
- Brass

### **Prototyping**

### **Materials**

### **Finishes**

### **Electrical Testing**

We provide rapid turnaround time at a competitive rate. We always try to meet your requested delivery date but sometimes, because of a heavy workload, this may not be possible.

We operate two GC-CAM stations and a 4000 DPI laser plotter. These let us rapidly configure your supplied information into operational film work, drill files, test information and route details. This lets us see problems before we start production, saving time and money.



GC-CAM stations



4000 DPI laser plotter

### **Printed Circuit Boards**

We provide these options for printed circuit boards:

- Single Sided
- Double Sided
- Double Sided Plated Through Holes
- Surface Mount
- Multi-layer (4 Layers)

## Stencils

We provide these options for **stainless steel** stencils:

- Imaging and etching stainless steel stencils for surface mount solder paste screening
- 0.005" stencils
- 0.006" stencils

We provide these options for **brass** stencils:

- 0.008" stencils 304 x 574

## Prototyping

We know the time constraints you are under when developing new products. So we offer a prototype service second to none in terms of quality and reliability.

We will set up your prototype board into a production format. So if your prototype layout and design are correct, then production can proceed without any additional set up charges.

## Materials

We routinely use FR4 Base Material in these sizes: 0.127, 0.8, 1.0, 1.2, 1.6, 2.0, 2.4, 3.2 mm. Other materials are available on request.



**CNC Drill and Route room**



**Plating Line**

## Finishes

Finished hole sizes:

- 0.30 - 2.6mm in steps of 0.05mm
- 2.6 - 6.0mm in steps of 0.1mm

Larger hole diameters can be routed given the centre position and diameter or finished size.

Plating:

- Standard plating thickness of 25 microns on top of nominated base copper.
- Other plating thickness available on request.

Gold:

- Gold and nickel plating for edge connectors

Solder Mask:

- Photo-imageable - standard colour matte green
- Other colours available on request.

Overlay:

- Standard colour white
- Other colours available on request

Peelable Mask:

- Blue



**Semi automatic Screen Printing**



**LPSM Imaging**

### **Electrical Testing**

Conventional and surface mount electrical testing is standard on higher volumes of printed circuit boards and densely populated PCBs. Electrical testing is otherwise available on request.

We operate two electrical testers:

- A conventional bed-of-nails tester is used for the production volume work.
- A Mania flying probe tester for testing fine pitch and double sided surface mount boards. This is used for low volume production.



**Speedy Flying Probe Tester**



**Twisbow Bed of Nails Tester**

The latest version of this document is on our web site, [capitalcircuits.co.nz](http://capitalcircuits.co.nz).